

Mobile SDK

Release Notes

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Chapter 1

About this release

The software and documentation is available from the Kofax Fulfillment Site: <https://delivery.kofax.com/>. A representative from your company registers on this site to download the software and documentation.

If you are already a Kofax customer, contact your Kofax Professional Services Regional Manager to discuss and plan your upgrade.

If you are an existing customer, follow the instructions below to access the product for this release:

1. Log in to the Kofax Fulfillment Site (<https://delivery.kofax.com/>).
2. From the Your Software list, locate and select the product you want to download.
3. Follow the instructions on the Fulfillment Site to complete your download.

The available packages include the software, documentation, and license keys for the release.

New customers will receive an email from Kofax after their product's purchase. The email will contain a serial number to use when registering on the Kofax Fulfillment Site. Registration provides customers with the credentials needed to download their product.

Version information

The build number for Mobile SDK is 3.4.0.0.0.514, which appears in the versions.txt included in the delivered product.

Product documentation

By default, the Mobile SDK documentation is available online. However, if necessary, you can also download the documentation to use offline.

Default online documentation

The product documentation for Mobile SDK 3.4.0 is available at the following location.

https://docshield.kofax.com/Portal/Products/en_US/KMC/3.4.0-o6num87075/SDK.htm

Configure offline documentation

To access the documentation offline, download `KofaxMobileSDKDocumentation-3.4.0_EN.zip` from the [Kofax Fulfillment Site](#) and extract it on a local drive available to your users.

The compressed file includes both `help` and `print` folders. The `print` folder contains all guides, such as the Installation Guide and the Administrator's Guide. The `help` folder contains APIs and other references.

New features

The following features were added for this release:

- Improved blur detection.
- HTML5 iOS Advanced Capture is now available in iOS 11 and later. As with Android, iOS now enables documents to be captured automatically with proper guidance messages.
- HTML5 Selfie Capture Experience now assists with taking selfies automatically. After identifying the face, selfie capture experience guides user to move the face to center or near the camera. The eye blink is detected to identify the liveliness and selfie is captured automatically.
- Quick Extractor is a new API to extract either bar code or MRZ data, and a face image from the ID documents. This approach works faster than On-Device Extractor and does not require models, but it is only suitable when all the data the user is interested in is stored in bar code or MRZ.
- Face and Signature Extraction (Mobile SDK only): On-device extraction supports extraction of face and signature images on the ID documents as part of the extraction data.
- Non-Latin ID Extraction (Mobile SDK only): On-device extraction supports non-Latin text extraction on ID documents.

Diagnostic information on image capture screen

You can now display diagnostic information on the image capture, which includes the following:

- If the image is focused.
- Stability status, including value and threshold.
- Camera resolution.
- If the camera is level.
- Pitch and roll, including the threshold for each.

PhoneGap support enhancements

The following features have been added to PhoneGap to improve compatibility and consistency.

- Functions are now available to access the `ImageProcessorConfiguration` image processing API.
- Cordova 8.0 is now supported.

Deprecated features

The following features were deprecated for this release.

Deprecated HTML5 APIs

For the KfxWebSDK image processor, autoCrop has been deprecated.

Chapter 2

Resolved issues

This section contains information about issues that have been resolved as of this version of the product.

Selfie capture only works with native capture

In HTML5 OnBoarding, when Advanced Capture was selected in the settings screen, and after authentication results in PASS/Attention, the camera for the selfie capture flow became unavailable in HTML5. (1113213)

Kofax Mobile Demo - Cannot build with latest Gradle

When building the Kofax Mobile Demo application in Android Studio, if you were using the latest Gradle setting, the application failed to build. (1107158)

Nationality is extracted incorrectly for German ID

All IDs/DLs with Nationality in the MRZ data were subject to an issue where the returned MRZ value for nationality was not the full name, or the standard three-digit abbreviation. For example, German ID Front 1995 should return "DEUTSCH" or "DEU" for nationality. (864927, 864920)

Chapter 3

Known issues

This section contains information about potential problems that you could encounter while using the SDK. Workarounds are provided as applicable.

Honor devices capture blurry passports in video mode

When capturing passport images on Honor devices in video mode, the images are blurry in most attempts. This prevents data from being extracted. This error was detected with Android OS 7.x. (1179662)

Workaround: Capture passport images in still camera mode.

Target frame cropping is cropping off laminated edges

When sending an image of a French ID (1994) card, it fails ID verification because the wrong image was sent. (1159240)

Workaround: We do not recommend using target frame cropping when processing identity documents with laminated edges. These edges are cropped and can result in misclassifications during additional processing.

SDK Guidance messages are not appearing

There are open issues with Chrome 64.0.3282.137 that cause incompatibility with the HTML advanced capture feature. (1106451)

Affected platforms and/or known devices:

- HTML5
- Android with Chrome version 64.0.3282.137.

Workaround: We recommend to use native capture on Chrome version 64.0.3282.137 and higher until this issue is resolved in Chrome.

Crash with CaptureExperience and ImageCaptureView.addOnImageCapturedListener()

If an application uses ImageCapturedListener (via ImageCaptureView.addOnImageCapturedListener()) along with the CaptureExperience API the application may crash due to a race condition. In some cases the CaptureExperience API and the application's listener process the same event in parallel. If the CaptureExperience happens to first there is no problem. But if the application listener happens to be first and then quickly clears the captured image bitmap, the application will crash. (891187)

Affected platforms and/or known devices:

- Android

Workaround: If possible, ensure the Capture Experience is first.

Truncated MRZ values are returned

When extracting an image with truncated MRZ field data, the fields are not replaced with the corresponding OCR value. Instead the truncated MRZ values are returned along with a confidence of 0.2, which means "0.2 - an MRZ value where the checksum does not match or the checksum does not exist." This is not the correct confidence definition, and the extracted values should come from OCR not MRZ. (886562, 886563)

Affected platforms and/or known devices:

- Android
- iOS

Workaround: None.

Android UnifiedServer: Concurrent extraction not working

ServerExtractor on Android will not support concurrent extraction. (799475).

Affected platforms and/or known devices:

- Android ServerExtractor

Workaround: None.

MICR detection regression for PNG type.

Using the PNG file format with checks may lower the ability to detect MICRs on the check front. (798960).

Affected platforms and/or known devices:

- iOS

Workaround: Use JPG for the front images of checks.

Mexico Tamaulipas DL back: last and middle names not parsed correctly from bar code

When extracting last and middle names from the bar code on the back to the Tamaulipas driver license, the names are not parsed correctly. (755948)

Affected platforms and/or known devices:

- iOS

Workaround: None.

ImageProcessor crashes with color TIFF files

When trying to process a color TIFF file, the ImageProcessor crashes when the host device is running iOS 10 and iOS 10.0.1. iOS versions 10.2.0 and newer do not exhibit this issue. (722209)

Affected platforms and/or known devices:

- Kofax Mobile SDK

Workaround: Avoid using color TIFF files.

Compiling issues when integrating CocoaPods

When integrating the Kofax Mobile SDK with CocoaPods (v1.0.1 or newer), the code will not compile, as it can't resolve some SDK header files.

Or, when integrating the Kofax Mobile SDK with CocoaPods, the code will not compile, and reports validation errors related to the Kofax Mobile on a POD that doesn't even use the SDK. (750473)

Workaround for the header files issue:

This can be a problem when the main project does not use the SDK framework, only a specific POD. In this case, assuming that this specific POD contains MobileSDK at the following path: /<POD_ROOT>/<POD_NAME>/Frameworks/MobileSDK.framework, the podspec file of that POD needs to be adjusted using the HEADER_SEARCH_PATH, to resolve the framework files correctly.

For example:

```
s.xcconfig = {'CLANG_ALLOW_NON_MODULAR_INCLUDES_IN_FRAMEWORK_MODULES' => 'YES',
'HEADER_SEARCH_PATHS' => "#{Shellwords.escape(File.join(File.dirname(__FILE__),
'<POD_NAME>
/Frameworks/MobileSDK.framework/Headers')) + '
${PODS_ROOT}/<POD_NAME>/<POD_NAME>/Frameworks/MobileSDK.framework/Headers
${PODS_ROOT}/../<POD_NAME>/Frameworks/MobileSDK.framework/Headers
${PODS_ROOT}/Headers/Public/<POD_NAME>/MobileSDK'}" }
```

Workaround 2 for the header files issue:

When having multiple PODs referencing each other, this can be a problem. The POD header files, referencing the mobile framework, should be private header files. If those header files are public, and another POD is referencing them, the Mobile SDK framework should be copied into that POD as well.

ODE bar code extractor returns no error or data

The ODE kfxKOEIDExtractor returns no error and no data for some bar code images. (712709)

- iOS

Workaround: None.

Mobile ID images not properly cropped

Some ID images are not cropped properly. Such images tend to be low contrast images, or images on backgrounds with noticeable noise. (689797):

Affected platforms and/or known devices:

- HTML

Workaround: Ensure that images have good contrast and low noise.

PhoneGap app crashes when processing a large gallery image

The PhoneGap application crashes when a large image (approximately 18MB) is loaded and processed from the gallery. (630332)

Affected platforms and/or known devices:

- iOS
- iPhone 4s

Workaround: Avoid loading and processing large images from the gallery.

Processed image is inappropriately deskewed

The processed image is deskewed even though auto deskew is disabled when auto rotate is enabled. If you are going to use auto rotate it is recommended that you enable deskew. (608615)

Affected platforms and/or known devices:

- iOS

Workaround: None.

Flash keeps cycling on/off every second

On some devices, the flash keeps cycling on and off every second before the image is captured. For these devices, the flash is being used to aid auto-focus and, depending on the diver, may be normal behavior. See the Android Developer guide for details. (607732)

Affected platforms and/or known devices:

- Android

Workaround: None.

checkCaptureExperience should not be used in image mode

The SDK doesn't allow an application to set the preview resolution. Because of this, on certain devices, if the `checkCaptureExperience` is used in image mode, the captured images are cut off. This occurs even though the default resolution for captured images is higher than 1080p, because the preview resolution is too low. (591091)

Affected platforms and/or devices:

- Android

Workaround: Always use the `checkCaptureExperience` in video mode.

Captured image is cropped

When using the `ImageCaptureView`, the captured image is cropped. This is seen only in image capture mode and not video capture. This happens with the following image resolutions: 2048x1536 and 2592x1944 (default). (564331)

Affected platforms and/or devices:

- Android
- Lenovo Vibe Z2 Pro

Workaround: Change to a different resolution.

Payee endorsement fails even though check is endorsed

In "Check information Usability", the results for Payee Endorsement show "Failed" even though the check is endorsed. (564547, 559858)

Affected platforms and/or devices:

- Android
- iOS

Workaround: This happens when capturing the signature on the left side of the check, instead of the right. Manually rotate the check so that the signature is on the right and try to retake the image.

Check detector returns bounds rotated 90 degrees

When passing in a portrait image, bounds come back in landscape. These bounds should be transformed back into portrait before they are returned. (556995)

Affected platforms and/or devices:

- Android

Workaround: None

CheckCaptureExperience does not work if the landscape view is landscape left

The `CheckCaptureExperience` works (gives correct guidance) in portrait orientation as well as "landscape right" orientation. If it is in "landscape left" orientation, it will give you the wrong guidance. Android devices display upside down `CaptureMessages`. (559425)

Affected platforms and/or devices:

- Android
- iOS

Workaround: None

CheckDetector only works with landscape bitmaps

The `CheckDetector` class only works when passed a landscape-oriented bitmap. With portrait-oriented bitmaps, you either get back a null result, or occasionally a sig 11 crash. (557910)

Affected platforms and/or devices:

- Android

Workaround: Use only landscape-oriented bitmaps with the `CheckDetector`. If necessary, you can try manually rotating the image.

PostNet bar code search is slower than other bar code symbologies

Depending on the device and the bar codes being read, search times will vary but will in general be up to 10 times slower when searching for the same number of PostNet symbologies as when searching for another symbology. (370107)

Affected platforms and/or devices:

- All

Workaround: None.

Camera feed upside down on landscape tablets

Some tablets (those which are designed such that landscape mode is the natural orientation) may exhibit a problem where the camera view appears inverted in the tablet screen. (306611)

This occurs when rapidly rotating the device 180 degrees one or more times.

Affected platforms and/or devices:

- Android
- Asus Transformer
- Galaxy Tab 10.1
- Nexus 10
- Possibly others

Workaround: When rotating the tablet, pause for a few moments every 90 degrees. Alternatively, disable the auto-rotate screen option.

SDK does not report KFS out of disk space

KFS will reject new jobs when hard disk free space falls below a configurable limit. When the free space on the server falls below this limit, all devices connecting to KFS are supposed to report a server low disk space message at login, so that the user will know that new jobs cannot be submitted. (23824)

Mobile devices currently do not report this message at login. Instead, the following error messages will appear when attempting to submit a job: `An error occurred submitting the case - Unknown transaction ID: [GUID]` or `Unknown transaction ID: [GUID] (Code 3)`.

Affected platforms and/or devices:

- KMC Library

Chapter 4

Additional documentation

This chapter supplements the documentation provided with the product with changes and corrections.

Corrections to the Mobile SDK Developer's Guide

The *Mobile SDK Developer's Guide* has several corrections. (1204096)

Correction to the "HTML 5 Capture" section

The correct name of the guide to refer to for HTML5 information is the *Kofax HTML5 SDK Developer's Guide*.

Component names and descriptions for the Android SDK

The following table replaces the two tables in the "Component names and descriptions for the Android SDK" section.

Name	Description
bolts-android-1.4.0.jar bolts-applinks-1.4.0.jar bolts-tasks-1.4.0.jar	Library for work with asynchronous tasks used by many features.
card.io-5.5.1.2.jar	Library for Credit Card capturing and extraction. Not needed if app does not require Credit Card support.
commonextractionengine-3.4.0.0.0.282.jar	OCR engine wrapper library for On-Device Extraction feature.
commons-io-2.6.jar	Library used for file copying by On-Device Extraction feature and SDK sample apps.
commons-lang3-3.7.jar	Apache library provides helper utilities for the java.lang API. It is used by many features.
converter-gson-2.4.0.jar okhttp-3.10.0.jar okio-1.14.0.jar retrofit-2.4.0.jar	Libraries used for network connection by On-Device Extraction feature.
dagger-2.15.jar javax.inject-1.jar	Framework for Dependency Injection to Android. It is used by many features.
gson-2.8.2.jar	Library for work with JSON format and used by Extraction feature.
isg-3.4.0.0.0.832.jar	Library for image processing and edge detection. Used by capture, image classification and document detection features.

Name	Description
manatee-2.5.0.0.0.62.jar	Library for Barcode capture, used in many features: BarcodeCaptureView, On-Device Extraction, License capture.
mobilebarcodeparser-3.4.0.0.0.82.jar	Library for On Device Extraction feature only.
otto-1.3.8.jar	Library provides event bus functionality. Used by Image Capture View. Needed if application requires capture feature.
sdk-release.aar	AAR encapsulates all SDK features: the capture feature with guidance, view controller for displaying an image, classes for bar code and credit card capturing, image processing, classification, and document detection, data extraction. It also contains utility classes for error handling, working with licensing and for AppStats etc.
tesseract-4.0.0.5.jar	Wrapper library for Tesseract OCR engine used for non-Latin characters by the On-Device Extraction feature.
xvrs-3.4.0.0.0.269.jar	New image processing and cropping library. Required for Fixed aspect ratio experience and Image processor.

Sample Android and iOS Projects

The following projects should be added to both the sample Android and iOS project lists:

- QuickExtractor
- QuickExtractorAgent

Incorrect code in the Selfie Code snippet

In the *Kofax Mobile Capture HTML5 SDK Developer's Guide*, the "KfxWebSDK.SelfieCapture (Kofax Selfie Capture)" and "Initiate SDK selfie capture with default options" sections contains a syntax error in the example code snippet. The correct syntax follows. (1199798)

```
//Initialize SelfieCapture singleton to work with video capturing
KfxWebSDK.SelfieCapture.loadModels(function() {
KfxWebSDK.SelfieCapture.create({
    videoStream: true,
    containerId: 'ID_CAMERA_DIV',
    preview: false
}, function() {
    console.info('Done');
}),
function(createError) {
    console.info(createError);
});
},function(loadModelsError){
    console.info(loadModelsError);
});
//Invokes method 'takeSelfie' on the singleton
KfxWebSDK.SelfieCapture.takeSelfie(function(imagedata) {
// Do something with image data here
},function(takeSelfieError) {
    console.info(takeSelfieError);
});
```

Incorrect link in the Kofax PhoneGap Plugin Developer's Guide

The *Kofax PhoneGap Plugin Developer's Guide* has a "Related documentation" section with an incorrect link. For the correct link to the hosted documentation, refer to "Product documentation" section. (1195941)